RCP8™ Specifications

Last Updated:May 05, 2005, 11:11 AM (GMT-05:00)

RCP8™ I/O Characteristics	
Expandable I/O	SIGMET I/O-62 PCI card (one standard) with RCP8™ rackmount panel
AZ and EL Angle Inputs	TTL 16-bit binary of BCD for AZ and EL or Synchro/Resolver (various frequencies supported)
AZ and EL Angle Outputs	Parallel TTL Binary angle up to 16 bits, or serial RS232 Asynch
Tach Inputs	Analog up to ±80 V
Antenna Drive Output	+ 10 V to servo amplifiers for AZ and EL
Status Bit Input Range	Switch closure or wide range ±27 V triggering at +2.5V. 330K input impedance. +5V pull-up/down configurable by software
Control Bit Output Range	RS422 and TTL. In addition 6 DIP relays are provided for switch closure output
A/D Inputs	20 A/D inputs nominal ± 6V, 12 bits @ 100 Hz
Host Interface	10/100/1000T Ethernet or RS232C asynch serial selectable to 39 Kbps
Antenna Control/Monitoring Features	
Servo Types	Digital position and velocity servos for both AZ and EL (independent)
Tachometer	Analog TACH or "Virtual Tach" from differentiated angle input
Velocity Servo Accuracy	0.5% at 3 RPM typical
Position Accuracy	0.1 degrees typical
Fail Safe Checks	Soft limiting, out-of-bound elevation request limiting, out of bound elevation, limit switch diode clamping, limit switch shutdown, out of bound antenna speed, unresponsive antenna, tach and angle changes inconsistent, "dead" host computer

Display	Front panel 2-line user configurable display to show AZ and EL positions and velocities as well as status parameters and faults. Optional keyboard, mouse and monitor
Radar Conrol/Monitoring Features	
Dedicated Control Outputs	Servo Power, Radiate, T/R Power, Pulse Width (4), Reset Signal
Dedicated Status Inputs	Servo Power, Radiate, Standby, Wave Guide Pressure, Interlock, Cooling Airflow, Pulse Width (4), Antenna Local Mode
Arbitrary BITE Monitoring and Control Features	
BITE Status/ Control Outputs	Up to 80 lines configurable in groups of 8 to be either input or output, TTL/CMOS
Moving Platform Option	
Motion Reference	Honeywell or Seatec INU with GPS update and serial output
Physical and Environmental	
Packaging	2U or 4U EIA 19" rackmount chassis. 3U rackmount connection panel
Input Power	85-264 VAC, 47-63 Hz
Power Consumption	70 Watts
Environmental	0°C to 50°C operating, 0 to 95% (non condensing) R.H.
Reliability	>50,000 Hours MTBF